powerbass®
AutoSound

ASA 200.2x
ASA 300.2x **ASA 400.4x**
ASA 400.2x **ASA 600.4x**
ASA 600.2x **ASA 700.5x**
ASA 800.2x **ASA 1100.5x**

ASA SERIES CLASS A/B AMPLIFIER

Owners Manual

Please read through this manual to familiarize yourself with your new amplifier. Should your PowerBass AutoSound mobile amplifier ever require service, you will need to have the original dated receipt.

Thank you and Congratulations

Thank you for your decision to purchase a PowerBass USA Autosound mobile amplifier! Our Autosound amplifiers are the result of extensive engineering, testing, and bullet proof construction. Their versatility enables compatibility with optional signal and audio processors. These high quality MOSFET amplifiers may be configured to allow maximum flexibility in designing different types of speaker systems.

A/B CLASS FULL RANGE AMPLIFIERS

The PowerBass ASA Series are high quality MOSFET amplifiers that are capable of running a system full range, or they may be selected only to power subwoofers. It is important that you closely follow the wiring instructions contained in this Owners Manual so that you get the most from your PowerBass AutoSound mobile amplifier.

Δ Caution Δ

High powered audio systems in a vehicle are capable of generating higher then "Live Concert" levels of sound pressure. Continued exposure to excessively high volume sound levels will cause hearing loss or damage. Also, operation of a motor vehicle while listening to audio equipment at thigh volume levels may impair your ability to hear external sounds suck as horns, warning signals, or emergency vehicles—thus creating a potential traffic hazard. In the interest of safety, PowerBass USA highly recommends listening at lower volume levels when driving.

TECHNICAL FEATURES

- Low Profile Aluminum Finned Heatsink
- PWM MOSFET Power Supplies for High Power Output and Best Stability into Low Impedance Loads
- Variable High Pass and Low Pass Electronic Crossover
- Soft Delay Remote Turn On/Off Circuit to Eliminating Pops and Clicks
- Fully Adjustable Bass EQ at 40Hz (18dB)
- Self Diagnostic Multi Protection Circuit with LED Status Indicator for; Impedance Over-load, Speaker Short Circuit, Thermal Overheating, and DC Output.
- 2-ohm Stereo Stable (4-ohm Mono Bridgeable)
- Custom Tooled Speaker and Power Terminal Blocks
- Variable Gain Control
- Gain Control Port (for Optional Remote Control - model ASA-BASS sold separately)
- Low Level Line Inputs and Outputs

INSTALLATION EXPERIENCE

Installation of PowerBass mobile amplifiers requires detailed knowledge of electronics wiring and proper speaker impedance. We strongly recommend installation by an authorized PowerBass dealer. This Owners Manual only provides general installation and operation instructions. If you have any reservations about your installation skills, please contact your local PowerBass dealer for assistance.

IMPORTANT : This amplifier is designed for operation in vehicles with 12-volt Negative ground electrical systems only.

PREPARING FOR INSTALLATION

NOTE: The tools listed below may be required for basic installation

- An electric drill with bits
- Philips head and standard screwdrivers
- Wire strippers
- Crimping tool
- VOM (electronic volt ohm meter)
- Heat shrink tubing and heat gun
- Soldering iron
- Electronic (not Acid Core) Solder

INSTALLATION PRECAUTIONS

NOTE: Proceed only if you are a qualified installer, otherwise; see your Authorized PowerBass Dealer to professionally install this amplifier. Always wear protective eyewear when using tools.

- Turn off all stereo and other electrical devices before you begin.
- Disconnect the negative (-) lead from your vehicles battery.
- Locate all fuel lines, brake lines, oil lines, and electrical cables when planning the install.
- Make sure there is at least 2-inches (5 cm) around the air vents on the amplifier.
- When connecting ground points, make sure all paint is carefully scrapped away from the auto body and contact is make with bare metal.
- Use a utility knife to trim away fabric from hole locations before drilling or cutting.
- When running power cables through sheet metal, be sure to use grommets to properly insulate the metal edges from the wire insulation.
- If possible, use tubing through grommets.

MOUNTING THE AMPLIFIER

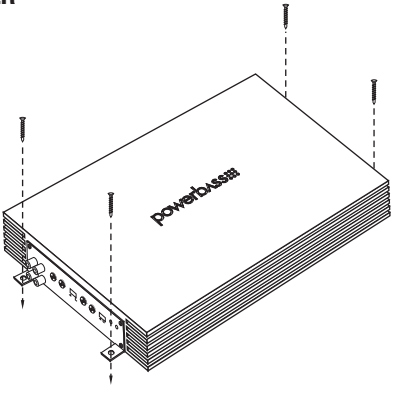

Fig.1 Mounting Amplifier

To keep your PowerBass Autosound amplifier running at top performance, choosing the proper location is of utmost importance. For this reason the amplifier should be mounted in a location which will allow air to circulate freely. A clearance of at least 2-inches (5 cm) to all sides of the amplifier is necessary not only for proper cooling, but also for gaining access to the inputs and other variable controls. Be sure that the power and signal cable connections can enter and leave the amplifier in a straight line to avoid the risk of kinked wires causing malfunction.

MOUNTING LOCATION

Find a clear and well ventilated area to mount your amplifier that is unobstructed by any objects that will cause harm or block ventilation. You may use the amplifier as a template and mark the four screw locations with a felt tip pen. Use caution to make sure there are no objects behind the installation surface that may become damaged during drilling.

If mounting under a seat, make sure there is at least 1-inch (2.5 cm) of space above the amplifier's heatsink to permit proper cooling.

The amplifier should be protected from exposure to moisture and direct sunlight. The best places to mount your amplifier are: The floor of the trunk, under a seat, or on the back of the rear seat. For alternate installation locations, please consult your authorized PowerBass Dealer.

***** WARNING *****

- Do not install in a place where it could injure the driver or passengers if the vehicle stops suddenly.
- Upside down mounting will compromise heat dissipation through the heatsink and could engage the thermal protection circuit.
- Try to avoid mounting the amplifier on a subwoofer enclosure, as extended exposure to vibration may cause malfunction of the amplifier.
- Don't mount the amplifier so that the wire connections are unprotected or are subject to pinching or damage from nearby objects.
- The DC power wire must be fused at the battery positive (+) terminal connection. Before making or breaking power connections at the amplifier power terminals, disconnect the DC power wire at the battery end.
- The battery of the car audio system must be disconnected until the entire wiring and installation is completed.

CONTROL PANEL LAYOUT

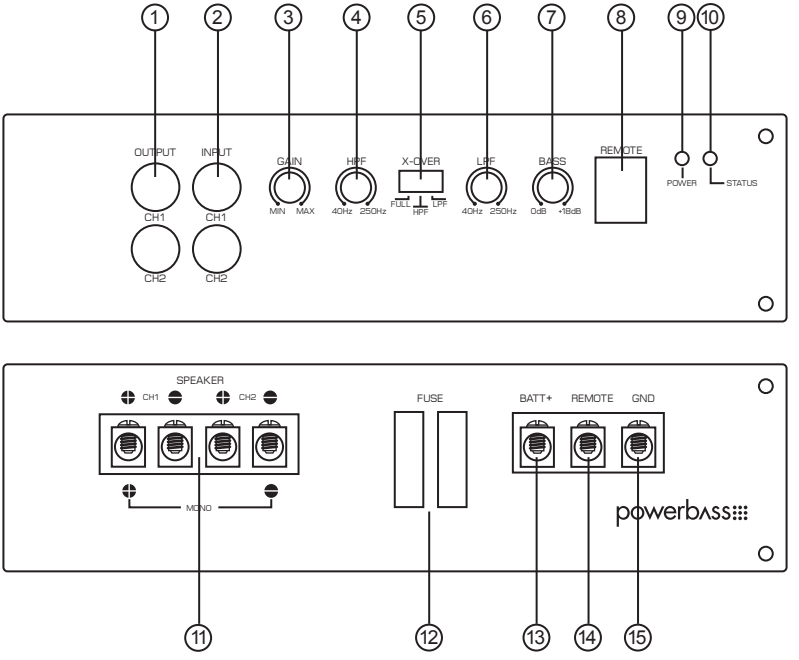

Fig.2 Panel Layout

NOTE: Panel Layout and Controls may differ by model.

1. Line OUTPUT (RCA) Jacks

RCA style pass through output jacks allow for a signal to be sent to other amplifiers.

2. Line INPUT (RCA) Jacks

These RCA style input jacks are for use with source units that have RCA line level outputs. A source unit with a minimum output of 500mV is required for proper operation. However, this input will accept levels up to 4Vrms.

3. GAIN Control

This control is used to match the input sensitivity of the amplifier to the particular source unit that you are using.

4. HPF (High Pass Filter) Control

This control is continuously adjustable from 40Hz through 250KHz at 12dB per octave.

5. X-OVER or MODE Switch for FULL/HPF/LPF
Activates the built in electronic crossover network. Works in conjunction with the HPF and LPF adjustable controls.

6. LPF (Low Pass Filter) Control
This control is continuously adjustable from 40Hz through 250Hz at 12dB per octave.

7. BASS Control
This equalization circuit is used to enhance the low frequency response of the vehicle's interior. With up to 18dB of boost centered at 40Hz, the BASS EQ can be adjusted to meet your own personal taste.

8. REMOTE
This is the connector port for the optional Remote Bass Boost Control. Now the amplifiers secondary gain circuit can be adjusted from the driver's seat. (See your local PowerBass dealer and ask for model ASA-BASS sold separately.)

9. POWER Indicator
The GREEN L.E.D. lights up when the power is on.

10. STATUS Indicator
This L.E.D. turns RED constantly or flashes when the built-in protection circuitry is activated. This indicates a problem with the system in relation to the amplifier (see Troubleshooting Tips).

11. SPEAKER Output Terminals
As shown in the wiring diagrams, be sure to observe speaker polarity through the system and speaker impedance. This specially tooled solderlessterminal is designed to accommodate up to 10 gauge speaker wire.

12. FUSES
For convenience most PowerBass AutoSound amplifiers utilize common automotive ATC type fuses. For continued protection in the event that a fuse blows, replace the fuse only with the same value. (See speficification tables)

13. BATT+ (Power Input Connection)
This terminal is the main power input for the amplifier and must be connected directly to the positive (+) terminal of the car battery. (see Power Cable Selection Chart for recommended wire gauge for each model).

14. REM (Remote Input Connection)
All PowerBass AutoSound amplifiers can be turned on by applying 12 volts to this terminal. This can be found on the rear of the source unit in the form of an electric antenna output, or a remote output. If this is not available you can wire to the ACC position on the key. An 18 gauge wire is sufficient to run the REMOTE.

15. GND (Ground Input Connection)
A good quality ground is required for your PowerBass AutoSound amplifier to operate at peak performance. A short length of cable the same gauge as your power cable should be used to attach the ground terminal directly to the chassis of the vehicle. Make sure that all of the paint is sanded or scraped away to ensure a quality ground connection.

POWER WIRING AND SIGNAL CONNECTIONS

***** WARNING *****

Disconnect the negative (-) battery terminal before you start any wiring work! The battery of your car audio system must be disconnected until the entire wiring installation is completed.

Your PowerBass Autosound amplifier requires unrestricted current to deliver peak performance, so do not "starve" your amplifier by using small power cable. Using under sized power cable can result in unnecessary over-heating of the amplifier, distortion at high volume levels and might even cause the thermal protection circuitry to shut-off the amplifier. For best results we recommend a PowerBass amplifier install kit, available at your local PowerBass dealer.

- Use rubber grommets when running cables through any metal or sharp plastic, to prevent accidental shorting or shearing. Make sure the cables do not interfere with normal operation of the vehicle.
- The audio signal cables (RCA interconnects) should be kept far away from any potential sources of electrical interference such as electronic vehicle management systems (relays, engine computers etc.), wiring harnesses, fuel pumps etc.

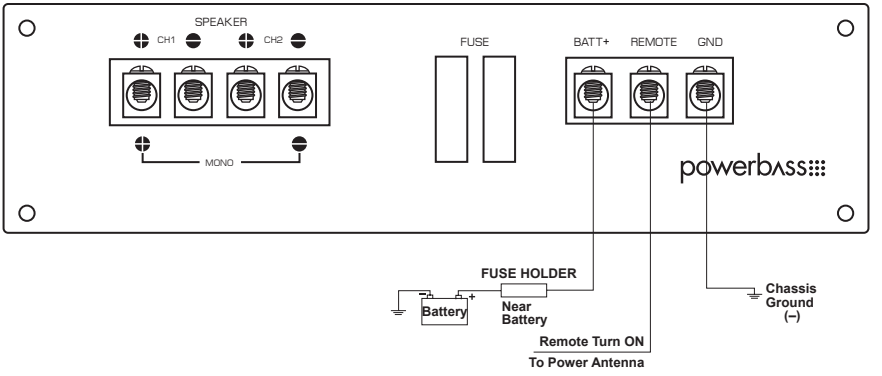

Fig.3 Power Input Connection

These amplifiers are designed to work within a 10 to 16 volt DC range. Before any wires are connected, the vehicles electrical system should be checked for correct voltage supply with the help of a voltmeter.

First, check the voltage at the battery with the ignition in the OFF position. The voltmeter should read no less than 12V. If your vehicles electrical system is not up to these specifications, we recommend having it checked by an auto electrician before any further installation. Once the vehicle is checked, make certain the correct cable gauge is used. We recommend using as large a gauge cable as possible, use the Power Cable Selection Chart to calculate the correct power wire size for your application.

POWER

This amplifier should be wired directly to the vehicle battery using the appropriate size cable. Start at the vehicle battery and run the power cable through to the amplifier. Avoid running the power cable over engine components and near heater cores. The use of an inline fuse or circuit breaker is a must; this will prevent the risk of a potential fire caused by a short in your power cable. Connect the fuse holder or circuit breaker as close to the battery positive (+) terminal as possible (no farther then 18" from the battery). This fuse or circuit breaker should be no greater then the sum of the fuses found on the chassis of your amplifier (also see specifications chart). You may now connect the cable to the battery, but remember to leave the fuse out or circuit breaker "off" until all other cable connections are made.

Ground

When grounding your amplifier, locate a metal area close to the amplifier that is good source of ground (preferable the floor pan). Once again, investigate the area you wish to use for electrical wires, vacuum lines, and brake or fuel lines. Use either a wire brush or sandpaper to eliminate unwanted paint for better contact of the ground.

Secure the ground cable to the body using a bolt, star washer and nut. Spread silicon over the screw and bare metal to prevent rust and possible water leaks.

Now it's time to connect the power and ground cables to the amplifier. Cut both cables to length. Strip off 1/2 inch (12mm) of the insulation so that the bare wire fits all the way in the terminal block on the side panel of the amplifier, seating it firmly so no bare wire is exposed. Use a screw driver to losen the BATT+ and the GND connection on the amplifier. Insert the ground first, and then the +12V and please make sure that you place them into the correctly marked terminals. Then tighten the screws down securely - use care not to over tighten and damage the wire.

Remote

This terminal must be connected to a switched +12V source. Typically, remote turn-on leads are provided at the source unit that will turn on and off the amplifier in correspondence with the source. If the source unit does not have a remote turn-on lead, then a power antenna wire can be used. If neither of these leads is available at the source unit, then a switched +12V supply must be used, like the ACC, +12V.

Run a minimum of 18 gauge wire from the amplifier location to the source of the switched +12V lead. If possible, route this wire on the same side of the vehicle as your power cable. Connect the source remote output to the wire. Go back to the amplifier and cut the wire to length. Loosen the screw terminal marked REMOTE on the amplifier using a Philips (cross) type screwdriver. Insert the stripped (bare) portion of the wire into the terminal and tighten the screw securely.

NOTE: It is highly recommended that a hand screw driver and NOT a power drill is used to tighten the set screws on the terminal blocks. This will prevent stripping or other possible damage to the amplifier.

RCA INTERCONNECT

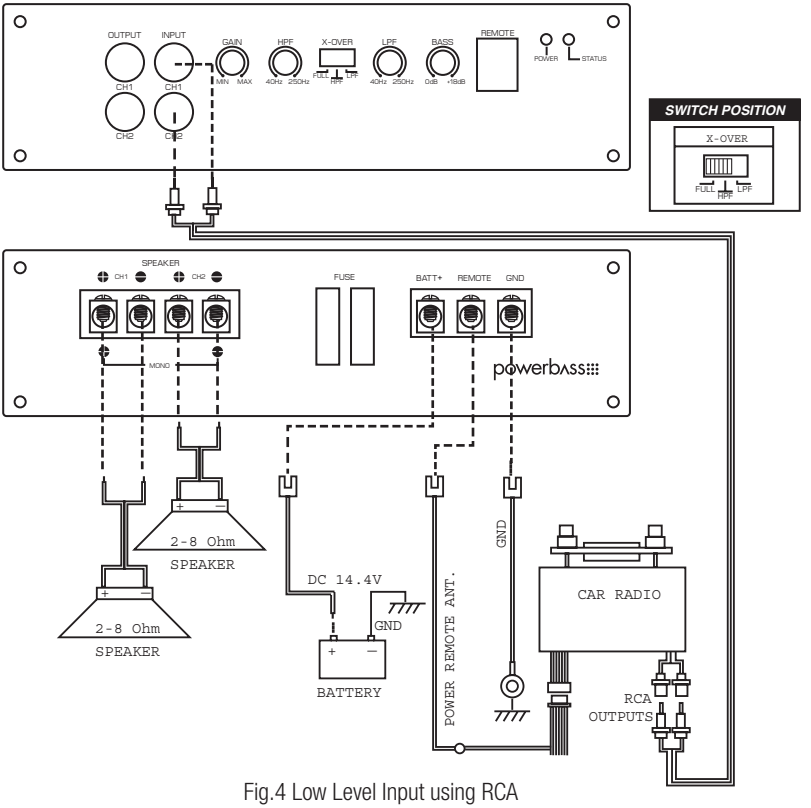

Fig.4 Low Level Input using RCA

Choose the correct length and style of RCA interconnects for your needs. Always use high quality RCA audio cables (not supplied) for signal connections—those with multiple layers of shielding or a twisted pair variety for better noise rejection.

Be extra careful when routing your RCA audio interconnect cables. Car environments are notorious for poorly insulated wires. This means that hiss, engine noise, and fan noise can easily be picked up through RCA cables if run incorrectly.

Make sure that the cables for power and audio signal are not on the same side of the vehicle and that they do not cross each other; this will help reduce any noise that may radiate from the power cable and the signal cable. If an audio cable is too close to a power cable, it may pick up the magnetic field generated by the power cable, which could lead to a loss of quality in your signal.

SET UP ADJUSTMENTS

Input Gain Adjustment

Input Sensitivity Control

Fig.5 GAIN Control

This control allows you to match the input level of the amplifier to the output level of your head unit. Matching the input can be accomplished in three simple steps:

1. Set the volume of GAIN on the amplifier to Min (completely counter clock wise).
2. Turn on the head unit and adjust volume to 2/3 maximum, and set the BASS and TREBLE to zero.
3. Adjust the GAIN control clockwise until the sound **just begins** to distort, then back off slightly to cut distortion and operate at optimum gain.

Remember, the **GAIN control is not a volume control**. Ignoring the three steps above may leave you with damaged speaker and/or a damaged amplifier.

Fig.6 Bass EQ Control

Bass Adjustment

This special feature is designed to provide you more powerful sound quality, and it allows you to boost the real Bass EQ up to +18dB. Keep in mind that more is not always better. Setting the control to the max (18dB) will stress the amplifier and the speakers and could result in damage.

Fig.7 High Pass Control (HPF)

HPF (High Pass Filter) Adjustment

When you are using coaxial or component speaker system, this allows you to adjust high-pass X-over frequency from 40Hz to 250Hz. To get better sound quality from coaxial or component speaker system, we recommend the frequency should be higher than 65dB. Make sure the X-OVER (or MODE) switch is positioned at “HPF”.

Fig.8 Low Pass Control (LPF)

LPF (Low Pass Filter) Adjustment

Using this volume, adjust the LPF frequency for your subwoofer speaker(s) operation. The X-OVER switch position should be at “LPF”.

Remote Port

This is for the optional Remote Gain Control (part# ASA-BASS see your Authorized PowerBass dealer for details). Plugging in the remote Bass Control overrides the BASS EQ Control on the amplifier side panel.

SPECIAL CONTROLS FOR THE ASA-1100.5

The following instructions apply to the model ASA-1100.5 only. You will not find these controls on any of the other models in this series.

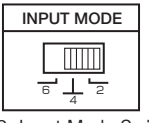

Fig.9 Input Mode Switch

Input Mode

The INPUT MODE switch conviniently allows you to select the number of input channels from the source (head unit) to the amplifier. The designations 2,4, and 6 refer to the number of channels or “pairs” of low level RCA style inputs (ex: 1pr, 2pr, and 3pr).

This allows you to drive each channel individually for increased performance while at the same time eliminates the need to use “Y” adaptors.

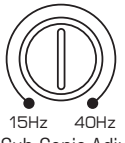

Fig.10 Sub Sonic Adjustment

Sub Sonic Adjustment

The sub sonic control will filter out all frequencies below where the control it is set from going to your subwoofer(s). This will prevent your subs from playing any low frequencies that may harm the speaker.

SPEAKER WIRING AND CONFIGURATIONS

Speaker Load

Keep in mind your PowerBass Autosound amplifier is a high power amplifier and not a high current amplifier. In other words **this amplifier requires a minimum impedance of 2 ohms STEREO and 4 ohms bridged MONO to operate trouble free.** Lower impedance will send the amplifier into protection and may possibly damage the electronics inside.

Speaker Wiring

Choose the correct speaker wire for your application. Most applications will require a minimum of 16 gauge wire. Route these using the same precautions as you did when you ran the power cable. Terminate these wires at the speaker end using insulated speaker terminals (not supplied) or by soldering the connection. Make sure the speaker connections are positive-to-positive and negative-to-negative. At the amplifier end, At the amplifier end, it is very important that the wires are making solid contact. Strip the wires insulation back approximately 1/2 inch (12mm) and insert the wires into the appropriate openings. Check to make sure you've maintained proper polarity and balance.

CAUTION:

Maintaining proper impedance is critical when wiring the Class AB model amplifiers. Improper wiring can cause severe damage to BOTH the woofer and the amplifier. Detailed wiring diagrams are supplied with all PowerBass woofers. IF YOU ARE NOT EXPERIENCED OR UNCOMFORTABLE READING THE WIRING DIAGRAMS CONSULT YOUR AUTHORIZED POWERBASS DEALER BEFORE YOU ATTEMPT TO WIRE THE SYSTEM.

Speaker Output Connections 2 Channel Models (ASA-200.2x, ASA-300.2x, ASA-400.2x, ASA-600.2x, ASA-800.2x)

1. 2-Channel Speaker Output Connection

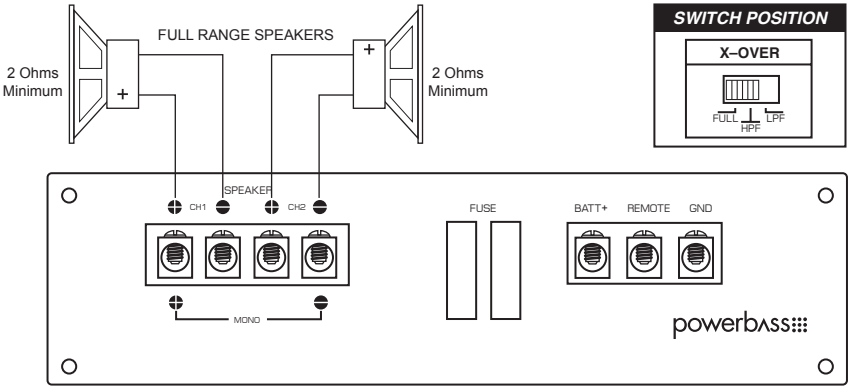

Fig.11 2-CH Speaker Connection
(Do not connect total impedance under 2 ohms)

2. 1-Channel (Bridged Mode) Speaker Output Connection

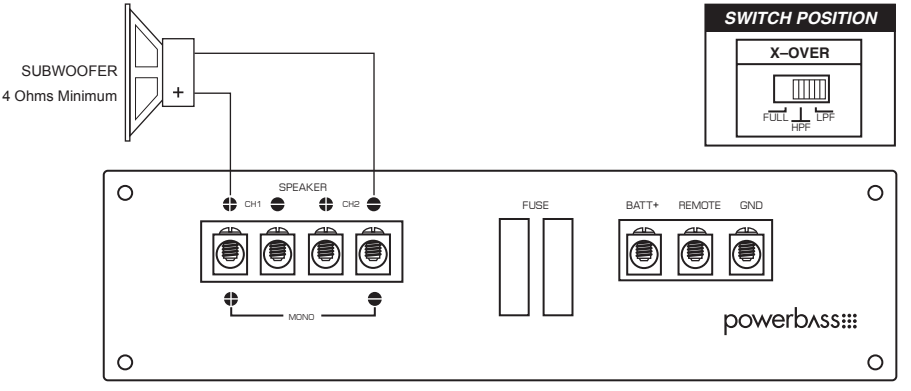

Fig.12 1-CH (Bridged Mode) Speaker Connection
(Do not connect total impedance under 4 ohms)

Speaker Output Connections 4 Channel Models (ASA-400.4x, ASA-600.4x)

3. 4-Channel Speaker Output Connection

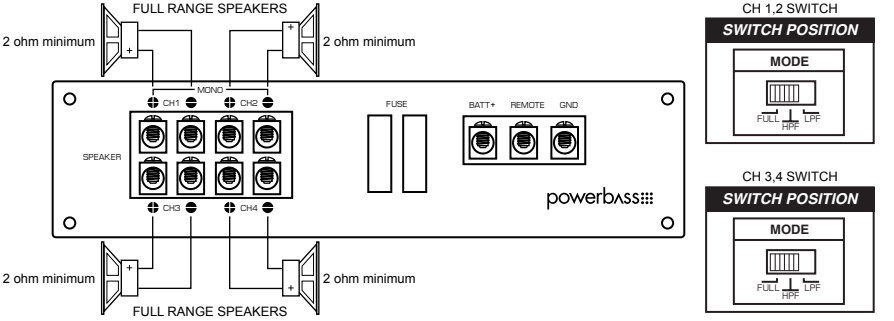

Fig.13 4-CH Speaker Connection / 2 ohms minimum

4. 3-Channel Stereo/Mono Speaker Output Connection

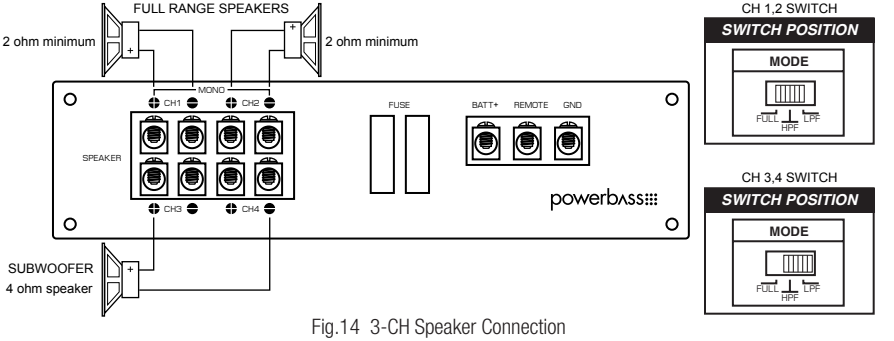

Fig.14 3-CH Speaker Connection

5. 2-Channel (Bridged Mode) Speaker Output Connection

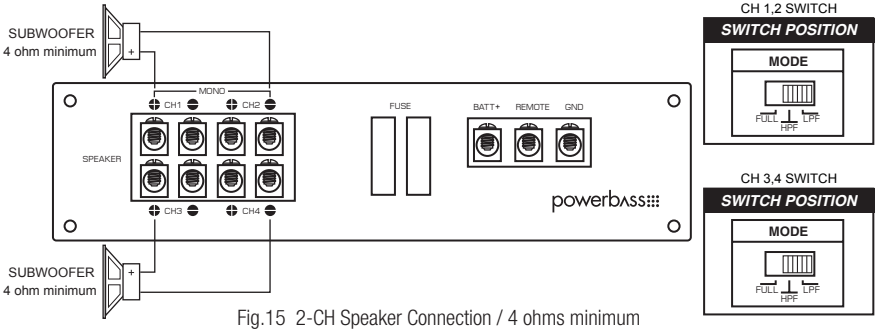

Fig.15 2-CH Speaker Connection / 4 ohms minimum

Speaker Output Connections 5 Channel Models (ASA-700.5x, ASA-1100.5x)

6. 5-Channel Speaker Output Connection

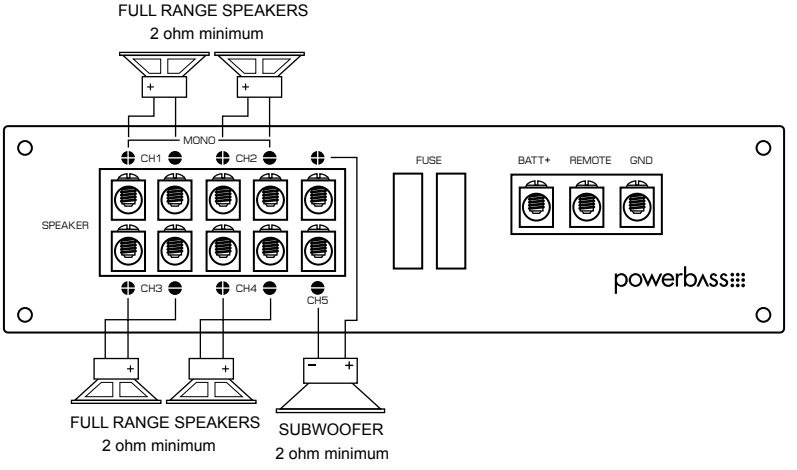

Fig.16 5-CH Speaker Connection / 2 ohms minimum

7. 3-Channel Speaker Output Connection

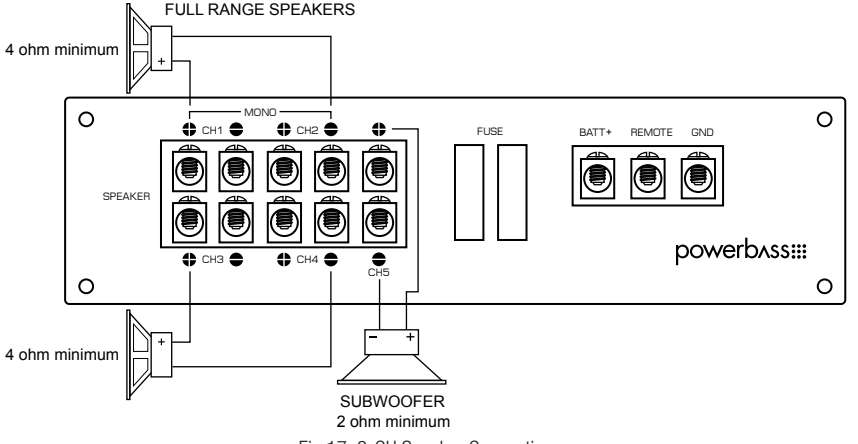

Fig.17 3-CH Speaker Connection

RECOMMENDED WIRE SIZES

Power Cable Selection Chart							
Fuse Total	**4Ft**	**4-7Ft**	**7-10Ft**	**10-13Ft**	**13-16 Ft**	**16-19 Ft**	**19-22 Ft**
In Amperes	**Length of Wire/Gauge**						
150A - 200A	2 GA	2 GA	2 GA	*1/0*	*1/0*	*1/0*	*1/0*
125A - 150A	4 GA	4 GA	4 GA	4 GA	2 GA	2 GA	2 GA
105A - 125A	8 GA	8 GA	8 GA	4 GA	4 GA	4 GA	2 GA
85A - 105A	8 GA	8 GA	8 GA	4 GA	4 GA	4 GA	4 GA
65A - 85A	10 GA	8 GA	8 GA	8 GA	4 GA	4 GA	4 GA
50A - 65A	10 GA	10 GA	8 GA	8 GA	8 GA	8 GA	8 GA
35A - 50A	10 GA	10 GA	10 GA	8 GA	8 GA	8 GA	8 GA

PowerBass makes several types of amplifier wiring kits to assist with the installation of your PowerBass amplifier. Consult your local PowerBass dealer for details. For more information about recommended power wire check out our website at www.powerbassusa.com.

PERSONAL NOTES:

Name: _____

Date Purchased: _____

Dealer: _____

Installed By: _____

Model: _____

Serial Number: _____

Miscellaneous: _____

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TROUBLESHOOTING TIPS

Problem	Solution
Power LED not ON	With a Volt Ohm Meter (VOM) check: • +12 Volt power terminal (should read +12 to +16VDC • Remote turn-on terminal (should read +12 to +16VDC) • Ground Terminal
Power LED lights GREEN, no output	• Check RCA connections • Test speaker outputs with known good speaker • Substitute known good Source Unit • Check for signal on the RCA cable with VOM in AC position
Red Status Protection LED is ON, no output and **1. Amp is VERY HOT** **2. Amp shuts down ONLY when the vehicle is running** **3. Amp plays at very low volume**	 • Thermal protection is engaged. Check for proper impedance at speaker terminals. Also check for adequate air flow around the amplifier. • Voltage protection engaged. Voltage to the amp is not within the 10-16 VDC operating range. Have the battery/charging system inspected. • Short circuit protection is engaged.Check for speaker wires shorted to each other or the vehicle chassis. Speakers operating below the minimum impedance can cause this to occur.
Alternator noise (varies with RPM)	• Check for damaged RCA cable. • Check routing of RCA cable • Check Source Unit for good ground • Check amp gain setting, turn down if set too high
Poor Bass Response	Check speaker polarity, reverse the connection of one speaker only.

NOTE: If the Status L.E.D. is activated and glows RED with no speakers connected to the amplifier, and all the power connections are correct, this would indicate an internal problem with the amplifier. Contact PowerBass USA or your local dealer.

SPECIFICATIONS FOR AUTOSOUND A/B AMPLIFIERS

Two Channel Models	ASA 200.2x	ASA 300.2x	ASA 400.2x
4 Ohms Power (Watts)	50 x 2	75 x 2	100 x 2
2 Ohms Power (Watts)	100 x 2	150 x 2	200 x 2
4 Ohms Mono Power (Watts)	200 x 1	300 x 1	400 x 1
Peak Power (Watts)	400	600	800
THD	0.05%	0.05%	0.05%
Frequency Response	20Hz - 22kHz	20Hz - 22kHz	20Hz - 22kHz
S/N Ratio	>94dB	>94dB	>94dB
Damping Factor	>150	>150	>150
Input Sensitivity	0.5 - 4.0 Volts	0.5 - 4.0 Volts	0.5 - 4.0 Volts
Crossover Slope	12 dB	12dB	12dB
High-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz	40 - 250Hz
Low-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz	40 - 250Hz
Variable Subwoofer EQ	0/+ 18dB	0/+ 18dB	0/+ 18dB
Subwoofer EQ Freq.	40Hz	40Hz	40Hz
Fuses/ ATC Style	1 x 15A	1 x 20A	2 x 15A
Dimension (1.9" H x 9.3" W)	7" L	7.8" L	10.2" L

Two Channel Models	ASA 600.2x	ASA 800.2x
4 Ohms Power (Watts)	150 x 2	200 x 2
2 Ohms Power (Watts)	300 x 2	400 x 2
4 Ohms Mono Power (Watts)	600 x 1	800 x 1
Peak Power (Watts)	1200	1600
THD	0.05%	0.05%
Frequency Response	20Hz - 22kHz	20Hz - 22kHz
S/N Ratio	>94dB	>94dB
Damping Factor	>150	>150
Input Sensitivity	0.5 - 4.0 Volts	0.5 - 4.0 Volts
Crossover Slope	12dB	12dB
High-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Low-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Variable Subwoofer EQ	0/+ 18dB	0/+ 18dB
Subwoofer EQ Freq.	40Hz	40Hz
Fuses/ ATC Style	2 x 25A	2 x 40A
Dimension (1.9" H x 9.3" W)	13.7" L	16.5" L

SPECIFICATIONS FOR AUTOSOUND AMPLIFIERS Cont.

Four Channel Models	ASA 400.4x	ASA 600.4x
4 Ohms Power (Watts)	50 x 4	100 x 4
2 Ohms Power (Watts)	100 x 4	200 x 4
4 Ohms Mono Power (Watts)	200 x 2	400 x 2
Peak Power (Watts)	800	1600
THD	0.5%	0.5%
Frequency Response	20Hz - 22kHz	20Hz - 22kHz
S/N Ratio	>94dB	>94dB
Damping Factor	>150	>150
Input Sensitivity	0.5 - 4.0 Volts	0.5 - 4.0 Volts
Crossover Slope	12 dB	12dB
High-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Low-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Variable Subwoofer EQ	0/+ 18dB	0/+ 18dB
Subwoofer EQ Freq.	40Hz	40Hz
Fuses/ ATC Style	2 x 15A	2 x 30A
Dimension (1.9" H x 9.3" W)	10.2" L	14.9" L

Five Channel Models	ASA 700.5x	ASA 1100.5x
4 Ohms Stereo Power (Watts)	50 x 4 + 200 x 1	75 x 4 + 250 x 1
2 Ohms Stereo Power (Watts)	100 x 4 + 400 x 1	150 x 4 + 500 x 1
4 Ohms Mono Power (Watts)	200 x 2 + 400 x 1	300 x 2 +500 x 1
Peak Power (Watts)	1400	2200
THD	0.5%	0.5%
Frequency Response	20Hz - 22kHz	20Hz - 22kHz
S/N Ratio	>94dB	>94dB
Damping Factor	>150	>150
Input Sensitivity	0.5 - 4.0 Volts	0.5 - 4.0 Volts
Crossover Slope	12dB	12dB
High-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Low-Pass Crossover Freq. (Hz)	40 - 250Hz	40 - 250Hz
Variable Subwoofer EQ	0/+ 18dB	0/+ 18dB
Subwoofer EQ Freq.	40Hz	40Hz
Sub Sonic Filter	N/A	15-40 Hz
Fuses/ ATC Style	2 x 30A	2 x 40A
Dimension (1.9" H x 9.3" W)	14.9" L	18.5" L

Important Notes:

- **Due to continuing improvements these specifications are subject to change without any notice.**
- **Do not attempt to fix or repair this unit. Unauthorized repairs will void the manufacturer's warranty.**

POWERBASS AUTOSOUND LIMITED WARRANTY POLICY

PowerBass USA, Inc. offers limited warranty on PowerBass products under normal use on the following terms:

PowerBass Autosound Amplifiers are to be free of defects in material and workmanship for a period of one (1) year.

This warranty applies only to PowerBass products sold to consumers by Authorized PowerBass Dealers in the United States of America. Products purchased by consumers from a PowerBass dealer in another country are covered only by that country's Distributor and not by PowerBass USA.

This warranty covers only the original purchaser of PowerBass product. In order to receive service, the purchaser must provide PowerBass with the receipt stating the consumer name, dealer, product and date of purchase.

Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at PowerBass's discretion and will not be liable for incidental or consequential damages. PowerBass will not warranty this product under the following situations:

- **Amplifiers received with apparent rust or corrosion**
- **Any evidence of liquid damage or exposure to excessive heat**
- **Attempted repairs or alterations of any nature**
- **Product that has not been installed according to this owners manual**

Any implied warranties including warranties of fitness for use and merchantability are limited in duration to the period of the express warranty set forth above. Some states do not allow limitations on the length of an implied warranty, so this limitation may not apply. No person is authorized to assume for PowerBass any other liability in connection with the sale of this product.

Please call (909) 993-5399 for PowerBass Customer Service. You must obtain an RA# (Return Authorization Number) to return any product to PowerBass. **The RA number must be prominently marked on the outside of the shipping carton or the delivery will be refused.** Please pack your return carefully; we are not responsible for items damaged in shipping. Return the defective product along with a copy of the original dated retail sales receipt, plus $9.00 for handling and diagnostic evaluation to:

PowerBass USA, Inc., Attn: Returns (RA#_____)
13936 Mountain Avenue, Chino, CA 91710

Residents of HI, AK and US territories will be charged for return shipping. All inquires regarding service and warranty should be sent to the above address.

Removed or altered serial numbers will void this warranty

PowerBass Autosound – A division of PowerBass USA, Inc.
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